AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) A high emissivity radiator comprising a substrate, an amorphous carbon layer formed on a radiating surface of the substrate, and a metallic ~~carbide-forming~~ carbide layer interposed between the substrate and the amorphous carbon layer and a protective layer formed on the amorphous carbon layer.

2. (Currently Amended) The radiator of claim 1, wherein the metallic carbide-forming carbide layer comprises titanium.

3. (Currently Amended) The radiator of claim 1, wherein the amorphous carbon layer and/or the ~~titanium~~ carbide layer has a thickness in the range of 0.1 micrometres to 1.0 micrometres.

4. (Cancelled).

5. (Currently Amended) The radiator of claim **[[4]]** 1, wherein the protective layer is substantially transparent to infrared radiation.

6. (Previously Presented) The radiator of claim 5, wherein the protective layer comprises at least one of SiC, SiO_2, diamond and diamond-like carbon.

7. (Currently Amended) A method of making a radiator having an emissivity of at least 30% for radiation of wavelength in the range of 3μm to 5μm, the method comprising the steps ~~of forming~~ of:

providing a substrate having a radiating surface; forming a metallic carbide-forming layer on ~~a substrate~~ the radiating surface; **[[**and**]]**

forming an amorphous carbon layer on and in contact with the metallic carbide-forming layer; and

forming a protective layer on the amorphous carbon layer.

8. (Original) The method of claim 7, wherein the amorphous carbon layer and/or the metallic carbide forming layer is formed by sputter deposition or evaporation.

9. (Cancelled).

10. (Currently Amended) The method of claim **[[7]]** 1, wherein the radiator is annealed after the steps of forming the metallic carbide-forming and amorphous carbon layers.

11. (Cancelled)

12. (Cancelled)

13. (Currently Amended) A radiator comprising: a substrate**[[,]]**; a soft amorphous carbon layer formed on the substrate; and

a metallic carbide layer interposed between the substrate and the amorphous carbon ~~layer~~ layer, wherein the metallic carbide layer is in contact with the amorphous carbon layer.

14. (Previously Presented) The radiator of claim 13, being a high emissivity radiator.

15. (Previously Presented) The radiator of claim 13 wherein the amorphous carbon layer is an annealed amorphous carbon layer.

16. (Currently Amended) A method of making a radiator comprising the steps of providing a metallic carbide-forming layer on a substrate; and forming a soft amorphous carbon layer on and in contact with the metallic carbide-forming layer.

17. (Previously Presented) The method of claim 16 wherein the radiator is a high-emissivity radiator.

18. (Currently Amended) The method of claim 16 wherein the metallic carbide-forming layer is provided as [[on]] an integral surface layer of the substrate.

19. (Previously Presented) The method of claim 16 wherein the metallic carbide-forming layer is provided as a separate layer on a surface of the substrate.

20. (Currently Amended) The radiator of claim 2, wherein the amorphous carbon layer and/or the ~~titanium~~ carbide layer has a thickness in the range of 0.1 micrometres to 1.0 micrometres.

21. (Cancelled).

22. (Currently Amended) The radiator of claim [[2]] 13, wherein the ~~amorphous carbon~~ carbide layer ~~is protected by a protective layer~~ comprises titanium.

23. (Currently Amended) The method of claim [[8]] 7, wherein the radiator is annealed after the steps of forming the ~~metallic carbide-forming and~~ amorphous carbon [[layers]] layer.

24. (Currently Amended) The method of claim [[9]] 16, wherein the radiator is annealed after the steps of forming the ~~metallic carbide-forming and~~ amorphous carbon [[layers]] layer.

25. (New) The use of claim 1, wherein the radiator has an emissivity of at least 30% for radiation of wavelength in the range of 3µm to 5 µm.